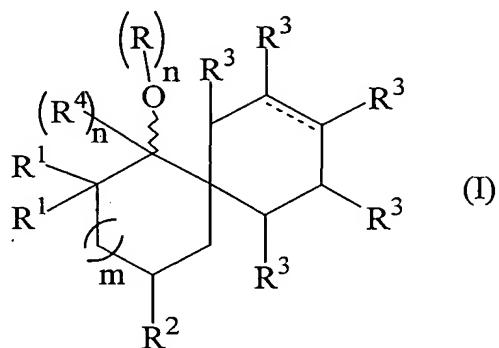


Claims

What is claimed is:

5 1. A composition comprising, as perfuming ingredient, at least one compound of formula



10 wherein the index m represents 0 or 1;

R represents a hydrogen atom, or a methyl or acetyl group;

R<sup>1</sup>, R<sup>2</sup> and R<sup>4</sup> represent a hydrogen atom or a methyl group;

R<sup>3</sup> represents a hydrogen atom, or a methyl or ethyl group; two, three or four of all the R<sup>1</sup>,

R<sup>2</sup>, R<sup>3</sup> and R<sup>4</sup> representing simultaneously a group containing at least a carbon atom; and

15 the wavy and dotted lines represent a double bond, in which case n represents 0;

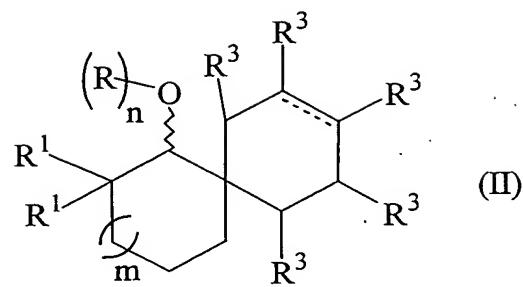
or

the wavy line represents a single bond, in which case the index n represents 1; and the dotted line represents a single or double bond;

in the form of any one of its optical isomers or diastereomers or of a mixture thereof, and

20 a perfume base.

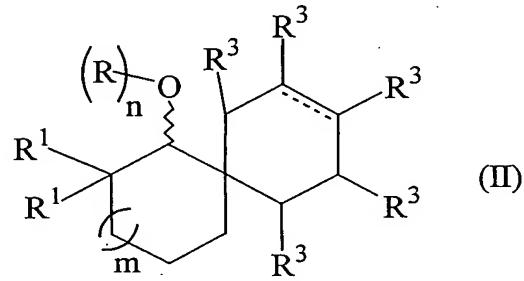
2. A composition according to claim 1, wherein the perfuming ingredient is a compound of formula



wherein n, m, R, R<sup>1</sup>, R<sup>3</sup>, the wavy line and the dotted line have the same meaning as indicated in claim 1.

5

3. A composition according to claim 1, wherein the perfuming ingredient is a compound of formula (II)



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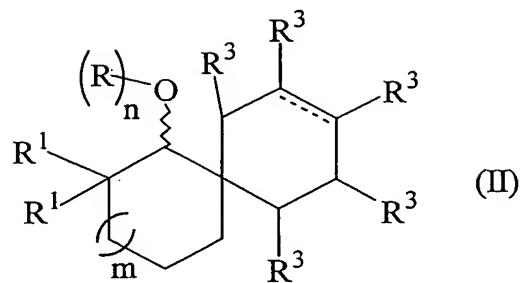
wherein the indexes m and n and the dotted and wavy lines have the same meaning as in claim 2; and

R represents a hydrogen atom or an acetyl group;

R<sup>1</sup> and R<sup>3</sup> represent a hydrogen atom or a methyl group; two, three or four of all the R<sup>1</sup> and R<sup>3</sup> representing simultaneously a methyl group and one, two or three of all the R<sup>3</sup> representing simultaneously a methyl group.

4. A composition according to claim 1, wherein the perfuming ingredient is a compound of formula (II)

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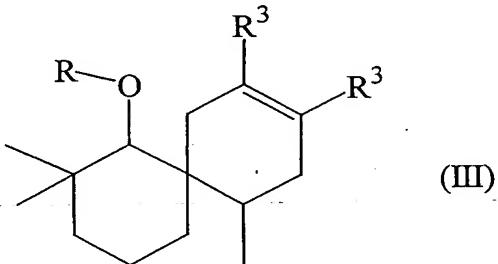


wherein the indexes m and n and the dotted and wavy lines have the same meaning as in claim 2; and

5 R represents a hydrogen atom or an acetyl group;  
 one R<sup>1</sup> is a hydrogen atom and the other R<sup>1</sup> represents a hydrogen atom or a methyl group;  
 R<sup>3</sup> represents a hydrogen atom or a methyl or ethyl group; two, three or four of all the R<sup>1</sup> and R<sup>3</sup> being a group containing at least a carbon atom and one, two or three of all the R<sup>3</sup>, preferably non adjacent, representing a methyl or ethyl group.

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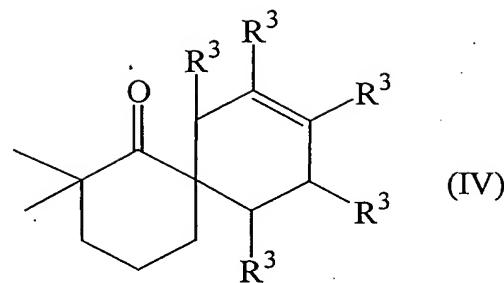
5. A composition according to claim 1, wherein in that the perfuming ingredient is a compound of formula



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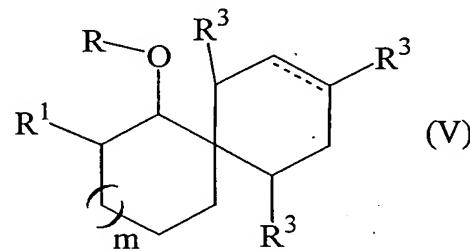
wherein R represents a hydrogen atom or an acetyl group; and  
 the R<sup>3</sup> are identical and represent a hydrogen atom or the R<sup>3</sup> are different and represent a hydrogen atom or a methyl group.

20 6. A composition according to claim 1, wherein the perfuming ingredient is a compound of formula



wherein two R<sup>3</sup> represent a methyl group and the other R<sup>3</sup> represent a hydrogen atom.

5        7. A composition according to claim 1, wherein the perfuming ingredient is a compound of formula



10        wherein R represents a hydrogen atom or an acetyl group;  
 R<sup>1</sup> represents a hydrogen atom or a methyl group; and  
 R<sup>3</sup> represents a hydrogen atom or a methyl or ethyl group and at least two R<sup>3</sup> represent a methyl group; and  
 m is 1 and the dotted line represents a single bond, or  
 15        m is 0 and the dotted line represents a double bond.

20        8. A composition according to claim 1, wherein said composition comprises, as perfuming ingredient, 2,2,9,11-tetramethylspiro[5.5]undec-8-en-1-yl acetate, 2,2,11-trimethylspiro[5.5]undec-8-en-1-ol, or a mixture of 2,2,7,9-tetramethylspiro[5.5]undec-8-en-1-one and 2,2,8,10-tetramethylspiro[5.5]undec-8-en-1-one.

9. A composition according to claim 1, wherein said composition comprises, as perfuming ingredient, 2,2,11-trimethylspiro[5.5]undecan-1-ol, 2,2-dimethylspiro[5.5]undec-8-en-1-one, (1RS,6SR,11SR)-2,2,9,11-tetramethylspiro[5.5]undec-8-en-1-yl

acetate, (1RS,6RS,11RS)-2,2,11-trimethylspiro[5.5]undec-8-en-1-ol, (1RS,6RS,11RS)-2,2,9,11-tetramethylspiro[5.5]undec-8-en-1-yl acetate, 2,6,8-trimethylspiro[4.5]dec-7-en-1-ol or 7-ethyl-11-methylspiro[5.5]undecan-1-ol or a mixture of 2,2,10-trimethylspiro[5.5]undec-8-en-1-one and 2,2,7-trimethylspiro[5.5]undec-8-en-1-one or a 5 mixture of 6,8-dimethyl-spiro[4.5]dec-7-en-1-yl acetate and 7,9-dimethyl-spiro[4.5]dec-7-en-1-yl acetate.

10 10. A composition consisting of at least a compound of formula (I), as defined in claim 1, and at least one perfumery carrier.

11

11. A perfumed article comprising:

- i) at least one compound of formula (I), as defined in claim 1; and
- ii) a consumer product base.

15

12. A perfumed article according to claim 11, wherein said consumer product base is in the form of a solid or liquid detergent, a fabric softener, a perfume, a cologne, an after-shave lotion, a perfumed soap, a shower or bath salt, mousse, oil or gel, a hygiene product, a hair care product, a shampoo, a body-care product, a deodorant, an antiperspirant, an air freshener, a cosmetic preparation, a fabric refresher, an ironing water, a paper, a wipe or a bleach.

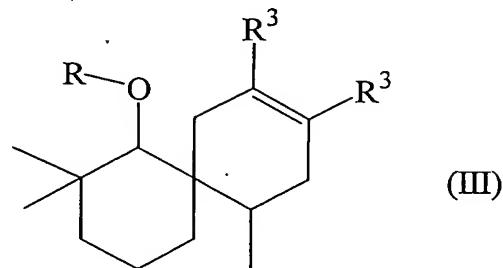
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13. A method to confer, enhance, improve or modify the odor properties of a perfuming composition or of a perfumed article, which method comprises adding to said composition or article an effective amount of at least a compound of formula (I) as 25 defined in claim 1.

25

14. A compound of formula (I), as defined in claim 1, provided that 2,8 dimethyl spiro[5,5]undec-8-en-1-one, 2,9-dimethyl spiro[5,5]undec-8-en-1-one, 1,9 dimethyl spiro[5,5]undec-8-en-1-ol, 1,8-dimethyl spiro[5,5]undec-8-en-1-ol, 1,7-30 dimethyl spiro[4,5]dec-7-en-1-ol, 1,8-dimethyl spiro[4,5]dec-7-en-1-ol, 8,9-dimethyl spiro[5,5]undec-8-en-1-one and 7,8-dimethyl spiro[4,5]dec-7-en-1-one are excluded.

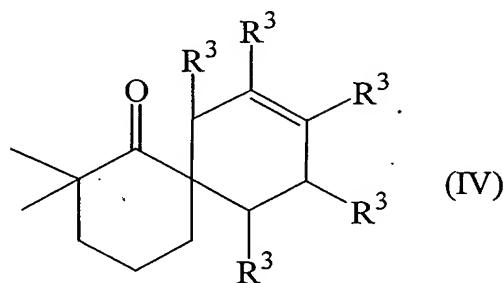
15. A compound according to claim 14, of formula



5    wherein R represents a hydrogen atom or an acetyl group; and  
 the R<sup>3</sup> are identical and represent a hydrogen atom or the R<sup>3</sup> are different and represent a hydrogen atom or a methyl group.

16. A compound according to claim 14, of formula

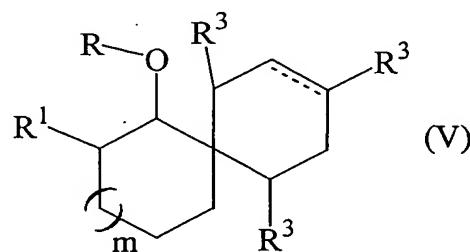
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wherein two R<sup>3</sup> represent a methyl group and the other R<sup>3</sup> represent a hydrogen atom.

15

17. A compound according to claim 14, of formula



wherein R represents a hydrogen atom or an acetyl group;

$R^1$  represents a hydrogen atom or a methyl group; and

$R^3$  represents a hydrogen atom or a methyl or ethyl group and at least two  $R^3$  represent a methyl group; and

$m$  is 1 and the dotted line represents a single bond, or

5       $m$  is 0 and the dotted line represents a double bond.

18. As compound according to claim 14, 2,2,9,11-tetramethylspiro[5.5]undec-8-en-1-yl acetate, 2,2,11-trimethylspiro[5.5]undec-8-en-1-ol, 2,2,11-trimethylspiro[5.5]undecan-1-ol, 2,2-dimethylspiro[5.5]undec-8-en-1-one, (1RS,6SR,11SR)-2,2,9,11-tetramethylspiro[5.5]undec-8-en-1-yl acetate, (1RS,6RS,11RS)-2,2,11-trimethylspiro[5.5]undec-8-en-1-ol, 2,6,8-trimethylspiro[4.5]dec-7-en-1-ol, 7-ethyl-11-methylspiro[5.5]undecan-1-ol or (1RS,6RS,11RS)-2,2,9,11-tetramethylspiro[5.5]undec-8-en-1-yl acetate.

19. A composition consisting of at least two compounds of formula (I), as defined in claim 1, provided that the compositions consisting of 2,8-dimethylspiro[5.5]undec-8-en-1-one and 2,9-dimethyl spiro[5.5]undec-8-en-1-one, or 1,9-dimethylspiro[5.5]undec-8-en-1-ol and 1,8-dimethyl spiro[5.5]undec-8-en-1-ol, or 1,7-dimethylspiro[4.5]dec-7-en-1-ol and 1,8-dimethyl spiro[4.5]dec-7-en-1-ol are excluded.

20      20. As a composition according to claim 19, a composition containing essentially 2,2,7,9-tetramethylspiro[5.5]undec-8-en-1-one and 2,2,8,10-tetramethylspiro[5.5]undec-8-en-1-one, or a composition containing essentially 2,2,10-trimethylspiro[5.5]undec-8-en-1-one and 2,2,7-trimethylspiro[5.5]undec-8-en-1-one or a composition containing essentially 6,8-dimethyl-spiro[4.5]dec-7-en-1-yl acetate and 7,9-dimethyl-spiro[4.5]dec-7-en-1-yl acetate.